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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,739	02/04/2005	Shigeru Nemoto	KITO2.006APC	7693
20995	7590	11/02/2005	EXAMINER	
KNOBBE MARTENS OLSON & BEAR LLP			STIGELL, THEODORE J	
2040 MAIN STREET			ART UNIT	
FOURTEENTH FLOOR			PAPER NUMBER	
IRVINE, CA 92614			3763	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/523,739

Applicant(s)

NEMOTO, SHIGERU

Examiner

Theodore J. Stigell

Art Unit

3763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☒ Claim(s) 1, 13, 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/4/2005</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

The disclosure is objected to because of the following informalities:

In the specification, page 2, line 16, replace "of the" with --by the-- to make the sentence more clear.

In the specification, page 18, "Attachment block mechanism" should not be capitalized.

Appropriate correction is required.

### ***Claim Objections***

Claim 1 is objected to because of the following informalities: "Connection" is misspelled. Appropriate correction is required.

Claim 13 is objected to because of the following informalities: "Attachment block mechanism" should not be capitalized. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Olympus Optical (JP 30/82462). Olympus Optical disclose a liquid injector that includes a patient tube (10) having a leading end, a syringe tube (9), a tank tube (11), tube connecting means (not labeled) for connecting the three tubes, a syringe drive mechanism (5) for relatively moving a piston to a cylinder member, a connection switch mechanism (6) for switching between a suck state and a block state, and interlock control means (13) for interlocking the operation of the syringe drive mechanism and the operation of the connection switch mechanism.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2 and 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olympus Optical (JP 30/82462) in view of Sugawara (JP 3-292964). Olympus Optical discloses a device that includes all of the limitations as recited in claim 1.

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Olympus Optical does not disclose a device that has an injection block mechanism and suck block mechanism that reciprocally open and close the flow passages. Sugiware does disclose a sealing mechanism that includes an injection block mechanism and a suck block mechanism in which the fluid flow is allowed in one direction while the other direction is blocked. Further more, it is the position of the Examiner that the structure of the reciprocal flow mechanism is merely a design choice matter that can easily be determined by one of ordinary skill in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the liquid injector of Olympus Optical with the reciprocal flow mechanism of Sugiware to make a liquid injector that can almost simultaneously deliver different drugs to affected areas of the body.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olympus Optical (JP 30/82462) and Sugawara (JP 3-292964) in further view of Kuraray Co., Ltd. (44514/19988). Olympus Optical and Sugiware in combination disclose a device that includes all of the limitations as recited in claim 2. They do not teach to add a switching valve at the tube connecting means. Kuraray Co., Ltd. does teach to add a switch valve at a tube connecting means for a contrast delivery system. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the tube connecting means of Optical (JP 30/82462) and Sugiware (JP 3-292964) with the switch valve of Kuraray Co., Ltd. to make a contrast delivery device that had greater control of the fluid flow.

Claims 9 and 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olympus Optical (JP 30/82462) and Sugawara (JP 3-292964) in view of Nowosielski (6,302,864). Olympus Optical (JP 30/82462) and Sugawara (JP 3-292964) disclose a device in combination that includes all of the limitations as recited in claim 2. Olympus Optical (JP 30/82462) and Sugawara (JP 3-292964) do not teach to include sensors to detect when the tubes are being blocked. Nowosielski does teach to include a sensor (76) that monitors the fluid pressure within a reservoir and sends a signal to the controller, which operates a pump. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Olympus Optical (JP 30/82462) and Sugawara (JP 3-292964) with the sensor of Nowosielski to make an injection device that can detect when certain parts of the flow passage are closed.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olympus Optical in view of Recinella (US 2001/0044618). Olympus Optical discloses an injection device that includes all of the limitations as recited in claim 1. Olympus Optical does not teach to use a one-way valve to regulate movement of the fluid through the three passages. Recinella discloses a device that includes one-way valves that direct the flow of fluid in passages. See paragraph [0029]. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Olympus Optical with the one-way valve of Recinella to make an injection device that prevents back-flow of liquid in flow passages.

***Allowable Subject Matter***

Claims 13 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

It is the Examiner's position that Applicant has evoked sixth paragraph, means-plus-function language to define Applicant's invention. If this is not the intention of the Applicant, appropriate correction is required.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Yamamoto (JP 2001-339707)  
Emig et al. (6,471,674)  
Duchon et al. (6,945,959)


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theodore J. Stigell whose telephone number is 571-272-8759. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nicholas Lucchesi can be reached on 571-272-4977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Theodore J. Stigell

  
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